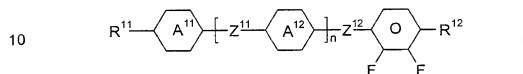


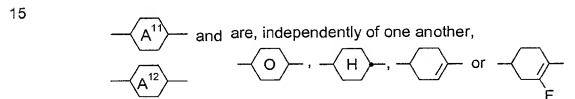
# Patent Claims

1. A nematic liquid-crystal medium, which comprises

5 a) a dielectrically negative, liquid-crystalline component A which comprises one or more dielectrically negative compounds of the formula I



in which



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$R^{11}$  is alkyl having from 1 to 7 carbon atoms, alkoxy having from 1 to 7 carbon atoms or alkenyloxy having from 2 to 7 carbon atoms,

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$R^{12}$  is alkyl or alkoxy having from 1 to 7 carbon atoms or alkenyl, alkenyloxy or alkoxyalkyl having from 2 to 7 carbon atoms,

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one of  $Z^{11}$  and  $Z^{12}$  is  $OCF_2$  or  $CF_2O$ , and the other is a single bond, and

$n$  is 0 or 1, and

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b) a dielectrically negative, liquid-crystalline component, B and

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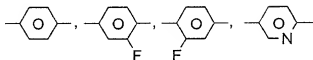
and



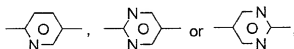
are each, independently of one another,



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$L^{21}$  and  $L^{22}$

are both C-F or one of the two is N and the other is C-F,

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m

is 0 or 1,

$Z^3$

is  $-\text{CH}_2-\text{CH}_2-$ ,  $-\text{CH}=\text{CH}-$ ,  $-\text{C}\equiv\text{C}-$ ,  $-\text{COO}-$  or a single bond,

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$R^{31}$  and  $R^{32}$

are each, independently of one another, alkyl or alkoxy having from 1 to 7 carbon atoms or alkoxy-alkyl, alkenyl or alkenyloxy having from 2 to 7 carbon atoms, and

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is 1 or 2.

3. A liquid-crystal medium of Claim 2, which comprises one or more compounds of the formula II.

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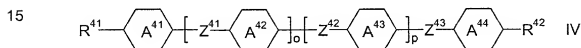
4. A liquid-crystal medium of Claim 2 which comprises one or more compounds of the formula III.

5. A liquid -crystal medium of Claims 1 which comprises a component C.

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6. A liquid-crystal medium of Claim 1, which comprises a component D.

7. An electro-optical display comprising a liquid-crystal medium according of Claim 1.
8. A display according to Claim 7, which is an active matrix display.
9. A display according to Claim 7 which is an ECB or IPS display.
10. The liquid-crystal medium of claim 1, wherein  $R^{11}$  is alkyl, alkoxy, or alkenyloxy of Z to 4 carbon atoms and one of  $Z^{11}$  or  $Z^{12}$  is  $OCF_2$ .
11. The liquid-crystal medium of claim 5, wherein component C comprises at least one compound of the formula IV.



in which

$R^{41}$  and  $R^{42}$  are each, independently of one another, as defined above for  $R^{21}$  in the case of the formula II,

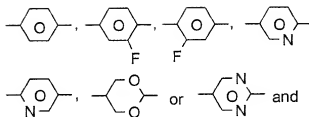
$Z^{41}$ ,  $Z^{42}$  and  $Z^{43}$  are each, independently of one another,  $-\text{CH}_2\text{CH}_2-$ ,  $-\text{CH}=\text{CH}-$ ,  $-\text{COO}-$  or a single bond,



are each, independently of one another,



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o and p, independently of one another, are 0 or 1,

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12. The liquid-crystal medium of claim 6, wherein component D comprises at least one compound of the formula V.

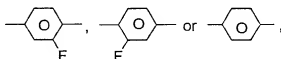
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are each, independently of one another,



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and very particularly preferably at least two of these rings

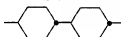


and/or

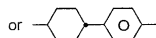


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where two adjacent rings are very particularly preferably linked directly to one another, preferably

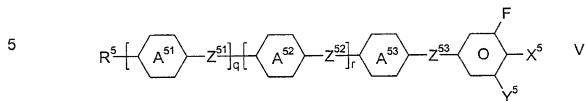


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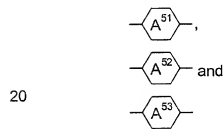
and optionally

d) one or more dielectric positive compound(s) of the formula V

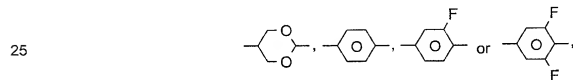


10  $R^5$  is alkyl or alkoxy having from 1 to 7 carbon atoms, or alkoxyalkyl, alkenyl or alkenyloxy having from 2 to 7 carbon atoms,

15  $Z^{51}$ ,  $Z^{52}$  and  $Z^{53}$  are each, independently of one another,  $-\text{CH}_2-\text{CH}_2-$ ,  $-\text{CH}=\text{CH}-$ ,  $-\text{C}\equiv\text{C}-$ ,  $-\text{COO}-$  or a single bond,



are each, independently of one another,



$X^5$  is F,  $\text{OCF}_2\text{H}$  or  $\text{OCF}_3$ , and

30  $Y^5$  is H or F, preferably F in the case where  $X = \text{F}$  or  $\text{OCF}_2\text{H}$ , and

$q$  and  $r$  are each, independently of one another, 0 or 1.

35 In a further preferred embodiment, the medium comprises one or more dielectrically negative compounds of the formula VI.

13. The liquid-crystal medium of claim 1, which comprises 5% to 85% by weight of component A, 5% to 85% by weight of component B, 0 to 50% by weight of component C and 0 to 40% by weight of component D.

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14. A display according to claim 8, which further comprises a this film transistor or varistor.

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15. A display according to claim 7, which further comprises a three-pole switching element.

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